

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-8 (Canceled)

9. (New) A method of making a substrate having an admicellar hydrophobic polymer coating thereon, comprising the steps of:

providing a substrate comprised of a plurality of individual fibers, each of the individual fibers having at least one surface; and
initiating an admicellar polymerization reaction on the at least one surface of the plurality of individual fibers to provide the at least one surface of the plurality of individual fibers with an admicellar hydrophobic polymer coating on at least one surface of the plurality of individual fibers.

10. (New) The method of claim 9 further comprising:

introducing an aqueous hydrophobic coating composition containing a surfactant and a monomer of a hydrophobic polymer on the at least one surface of the plurality of individual fibers to form the admicellar hydrophobic polymer coating; and

introducing an initiator to the aqueous hydrophobic coating composition disposed on the at least one surface of the plurality of individual fibers.

11. (New) The method of claim 9 further comprising:
initiating the admicellar polymerization reaction on the at least one surface of the plurality of individual fibers coated with the aqueous hydrophobic coating composition for a predetermined period of time.
12. (New) The method of claim 9, wherein the substrate is selected from the group consisting of cloth, burlap, polyesters, paper, cardboard and combinations thereof.
13. (New) The method of claim 10, wherein the surfactant is selected from the group consisting of sodium dodecyl sulfate, linear alkyl benzene sulfonate, and combinations thereof.
14. (New) The method of claim 10, wherein the monomer of a hydrophobic polymer is styrene.

15. (New) The method of claim 10, wherein the initiator is sodium persulfate.
16. (New) The method of claim 10, wherein the initiator is AIBN.
17. (New) The method of claim 11 further comprising:
heating the substrate having the hydrophobic coating composition disposed on the at least one surface of the plurality of individual fibers and the initiator introduced thereon to a temperature in a range of from about 40 °C to about 100 °C for a predetermined time in a range of from about 30 minutes to about 180 minutes.
18. (New) The method of claim 17, wherein the substrate having the hydrophobic coating composition disposed on the at least one surface and the initiator introduced thereon is heated to a temperature of about 80 °C for a predetermined time of about 60 minutes.
19. (New) The method of claim 9, wherein the plurality of individual fibers comprise natural fibers.
20. (New) The method of claim 9, wherein the plurality of individual fibers comprise synthetic fibers.

21. (New) A method of making a substrate having an admicellar hydrophobic polymer coating thereon, comprising the steps of:

providing a substrate comprised of a plurality of individual fibers, each of the individual fibers having at least one surface; and
applying an admicellar hydrophobic polymer coating on the at least one surface of the plurality of individual fibers wherein voids disposed between the plurality of individual fibers having the admicellar hydrophobic polymer coating on the at least one surface are free of the admicellar hydrophobic polymer coating.

22. (New) The method of claim 21 further comprising:

introducing an aqueous hydrophobic coating composition containing a surfactant and a monomer of a hydrophobic polymer on the at least one surface of the plurality of individual fibers to form the admicellar hydrophobic polymer coating; and

introducing an initiator to the aqueous hydrophobic coating composition disposed on the at least one surface of the plurality of individual fibers.

23. (New) The method of claim 22 further comprising:

initiating an admicellar polymerization reaction on the at least one surface of the plurality of individual fibers coated with the aqueous hydrophobic coating composition for a predetermined period of time.

24. (New) The method of claim 21, wherein the substrate is selected from the group consisting of cloth, burlap, polyesters, paper, cardboard and combinations thereof.

25. (New) The method of claim 22, wherein the surfactant is selected from the group consisting of sodium dodecyl sulfate, linear alkyl benzene sulfonate, and combinations thereof.

26. (New) The method of claim 22, wherein the monomer of a hydrophobic polymer is styrene.

27. (New) The method of claim 22, wherein the initiator is sodium persulfate.

28. (New) The method of claim 22, wherein the initiator is AIBN.

29. (New) The method of claim 23 further comprising:

heating the substrate having the hydrophobic coating composition disposed on the at least one surface of the plurality of individual fibers and the initiator introduced thereon to a temperature in a range of from about 40 °C to about 100 °C for a predetermined time in a range of from about 30 minutes to about 180 minutes.

30. (New) The method of claim 29, wherein the substrate having the hydrophobic coating composition disposed on the at least one surface and the initiator introduced thereon is heated to a temperature of about 80 °C for a predetermined time of about 60 minutes.

31. (New) The method of claim 21, wherein the substrate having the admicellar coating thereon has an air permeability substantially the same as the air permeability of an uncoated substrate.

32. (New) The method of claim 21, wherein the plurality of individual fibers comprise natural fibers.

33. (New) The method of claim 21, wherein the plurality of individual fibers comprise synthetic fibers.

34. (New) A method of making a substrate having an admicellar hydrophobic polymer coating thereon, comprising:

providing a substrate comprised of a plurality of individual fibers, each of the individual fibers having at least one surface, wherein the substrate is selected from the group consisting of cloth, burlap, polyesters, paper, cardboard and combinations thereof;

applying an admicellar hydrophobic polymer coating on the at least one surface of the plurality of individual fibers wherein voids disposed between the plurality of individual fibers having the admicellar hydrophobic polymer coating on the at least one surface are free of the admicellar hydrophobic polymer coating,

introducing an aqueous hydrophobic coating composition containing a surfactant and a monomer of a hydrophobic polymer on the at least one surface of the plurality of individual fibers to form the admicellar hydrophobic polymer coating, wherein the surfactant is selected from the group consisting of sodium dodecyl sulfate, linear alkyl benzene sulfonate and combinations thereof and the monomer of a hydrophobic polymer is styrene;

introducing an initiator to the aqueous hydrophobic coating composition disposed on the at least one surface of the plurality of individual fibers to initiate an admicellar polymerization reaction on the at least one surface of the plurality of individual

fibers coated with the aqueous hydrophobic coating composition for a predetermined period of time, wherein the initiator is AIBN; and

heating the substrate having the hydrophobic coating composition disposed on the at least one surface of the plurality of individual fibers and the initiator introduced thereon to a temperature in a range of from about 40 °C to about 100 °C for a predetermined time in a range of from about 30 minutes to about 180 minutes.